

PATENT COOPERATION TREATY

119D

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:
WOLF, GREENFIELD & SACKS, P.C.
Attn. Morris, James H.
600 Atlantic Avenue
Boston, MA 02210
UNITED STATES OF AMERICA

INVITATION TO PAY ADDITIONAL FEES

(PCT Article 17(3)(a) and Rule 40.1)

Date of mailing (day/month/year)	09/09/2004
Applicant's or agent's file reference B1075.70043 WOLF	PAYMENT DUE within 45 XXXX days from the above date of mailing
International application No. PCT/US2004/009605	International filing date (day/month/year) 29/03/2004
Applicant C.R. BARD, INC.	

1. This International Searching Authority

- (i) considers that there are 5 (number of) inventions claimed in the international application covered by the claims indicated ~~XXXX~~ on the extra sheet:

and it considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated ~~XXXX~~ on the extra sheet:

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SEP 17 2004

Confirmation	Initials
Docketing	
15/04/04 11/9/04	

- (ii) ☒ has carried out a partial international search (see Annex) ☐ will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:
see annex
- (iii) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid

2. The applicant is hereby invited, within the time limit indicated above, to pay the amount indicated below:

EUR 1.550,00 x 4 = EUR 6.200,00
Fee per additional invention number of additional inventions total amount of additional fees

Or, _____ x _____ = _____

The applicant is informed that, according to Rule 40.2(c), the payment of any additional fee may be made under protest, i.e., a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fee is excessive.

3. ☒ Claim(s) Nos. see annex have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

Name and mailing address of the International Searching Authority
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Authorized officer

Mr W. URACK
0049 30 25 901-718

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-27

A catheter comprising a handle, a shaft portion coupled to a distal end of the handle, a tip portion, a braided conductive member coupled to the shaft portion and the tip portion, and a mandrel fixedly attached to the tip portion and slidably disposed within the shaft portion; wherein actuation of the mandrel expands the braided conductive member from an undeployed to a deployed position.

2. claims: 38-43

A catheter comprising a shaft portion coupled to a distal end of the handle, a tip portion, at least a portion of the tip portion being constructed of an elastomeric material, a braided conductive member coupled to the shaft portion and the tip portion.

3. claims: 44-48

A catheter comprising a handle, a shaft portion coupled to a distal end of the handle, a conductive member coupled to the shaft portion, the conductive member formed of a plurality of filaments, and a thermocouple wire coupled to a filament of the conductive member via a conductive junction, wherein the thermocouple wire is formed of a different material than the filament, and wherein the conductive junction is located between first and second ends of the filament.

4. claims: 54-58

A steering mechanism for a catheter, comprising a steering cable of first diameter, and an anchor disposed at a distal end of the steering cable, the anchor having a second diameter, wherein the first diameter is less than a diameter through which at least a portion of the steering cable passes and the second diameter is greater than the diameter of the lumen.

5. claims: 59-65

A method of controlling the rotational friction of a thumbwheel of a catheter handle, comprising the rotational friction on the thumbwheel by compressing a spring that contacts the thumbwheel, and decreasing the frictional friction on the thumbwheel by decompressing the spring; and a handle for use with a catheter, the handle comprising a housing, a thumbwheel coupled to the housing, a spring coupled to the housing in contact with the thumbwheel, and means for increasing compression of the spring to increase rotational friction on the thumbwheel.

1. The closest state of the art document US5891136, cited in the research report, discloses a catheter with a handle, shaft, tip, braided conductive member and a mandrel.

2. The present application has nine independent claims:-

Claim 1 relates to a catheter with braided conductive member and a mandrel,

Claim 28 relates to a method of deployment (non-patentability),

Claim 38 relates to a catheter with an elastomeric tip and a braided conductive member,

Claim 44 relates to a catheter with a conductive member formed of filaments, and a thermocouple wire coupled to a filament,

Claim 49 relates to a method of using a catheter (non-patentability),

Claim 52 relates to a method of using a catheter (non-patentability),

Claim 54 relates to a steering mechanism for a catheter,

Claim 59 relates to a method of controlling the rotational friction of a thumbwheel, and

Claim 62 relates to handle for use with a catheter.

3. In the light of the closest prior art document, Claim 1 shows no special technical feature according to Rule 13.2 PCT. The first claim dependent on claim 1 to possess a special technical feature is claim 2, where the feature is the mandrel having two tiers with different diameters.

4. In the light of US5891136, independent claim 38 shows the special technical feature according to Rule 13.2 PCT of the elastomeric tip.

5. In the light of the closest prior art, independent claim 44 shows the special technical feature according to Rule 13.2 PCT of the coupling of the thermocouple wire to a filament.

6. Similarly, in the light of the closest prior art document, Claim 54 shows the special technical feature of the steering mechanism.

7. In the light of US5891136, independent claim 59 shows the special technical feature according to Rule 13.2 PCT of the controlling the rotational friction of a thumbwheel.

8. Similarly, independent claim 62 shows the special technical feature of a handle with a thumbwheel.

9. The special technical features of claim 1 (catheter with mandrel),

independent claim 38 (elastomeric tip), independent claim 44 (thermocouple), independent claim 54 (steering mechanism) and independent claims 59 and 62 (handle with thumbwheel) show no common technical feature or inventive concept and are therefore considered to be five inventions.

10. The application relates to a plurality of inventions, or groups of inventions, in the sense of Rule 13.1 PCT. They have been divided as defined above. If the applicant pays additional fees for one (or more) not yet searched group(s) of invention(s), then the further search(es) may reveal further prior art that gives evidence of a further lack of unity 'a posteriori' within one (or more) of the not yet searched group(s). In such a case only the first invention in this (each of these) group(s) of inventions, which is considered to lack unity of invention, will be the subject of a search. No further invitation to pay further additional fees will be issued. This is because Article 17(3)(a) PCT stipulates that the ISA shall establish the International Search Report on those parts of the international application which relate to the invention first mentioned in the claims ('main invention') and for those parts which relate to inventions in respect of which the additional fees were paid. Neither the PCT nor the PCT guidelines provide a legal basis for further invitations to pay further additional search fees (W17/00, point 11 and W1/97, points 11-16).

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 206

Continuation of Box 3.

Claim(s) not searched:
28-37, 49-53

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery

Annex to Form PCT/ISA/206
COMMUNICATION RELATING TO THE RESULTS
OF THE PARTIAL INTERNATIONAL SEARCH

International Application No
PCT/US2004/009605

1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.:
2. This communication is not the international search report which will be established according to Article 18 and Rule 43. see 'Invitation to pay additional fees'
3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.
4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 891 136 A (MCGEE DAVID ET AL) 6 April 1999 (1999-04-06)	1,14,15
Y	column 5, lines 35-52; figures 1,6,7	2-10, 16-22,27
	column 10, lines 17-53 column 12, line 34 - column 13, line 13; figure 14 column 24, line 5 - column 25, line 24	
X	WO 00/67656 A (ATRIONIX INC) 16 November 2000 (2000-11-16) page 34, line 18 - page 35, line 11; figure 14 page 37, line 26 - page 38, line 6; figure 18	1,4-6
Y	WO 94/00178 A (SCHNEIDER USA INC) 6 January 1994 (1994-01-06) page 3, line 33 - page 4, line 4 page 11, line 3 - page 12, line 27; figures 5-8 page 16, line 5 - page 17, line 24; figure 9 page 18, line 30 - page 19, line 2	4-10, 20-22
A		1
Y	WO 01/82814 A (BARD INC C R) 8 November 2001 (2001-11-08) the whole document	1,4-6, 13-15
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Annex 1. Form PCT/ISA/206
COMMUNICATION RELATING TO THE RESULTS
OF THE PARTIAL INTERNATIONAL SEARCH

International Application No
PCT/US2004/009605

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 681 280 A (BOWE WADE A ET AL) 28 October 1997 (1997-10-28) column 6, lines 1-52; figure 1	1,4-6, 13-15
A	column 9, line 46 - column 15, line 18; figures 4,12-15	12,27
Y	WO 99/15225 A (UNITED STATES SURGICAL CORP ; FUTATO LISA D (US); ANGIORAD LLC (US); L) 1 April 1999 (1999-04-01)	16,17,27
A	page 6, line 15 - page 7, line 7	1,2
Y	US 5 868 706 A (COX DANIEL L) 9 February 1999 (1999-02-09)	2,3
A	column 2, lines 41-44 column 4, line 60 - column 5, line 16	1,16,17
A	EP 0 982 047 A (CORDIS WEBSTER INC) 1 March 2000 (2000-03-01) column 5, lines 6-40; figure 1 page 9, line 41 - page 10, line 21; figures 2-4	1,8-11
Y	US 5 813 997 A (QUIACHON DIGNAH B ET AL) 29 September 1998 (1998-09-29) column 11, lines 10-18; figure 13	18,19

Patent Family Annex

Information on patent family members

International Application No

PCT/US2004/009605

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5891136	A	06-04-1999	WO 9725916 A1	24-07-1997
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Patent Family Annex

Information on patent family members

International Application No

PCT/US2004/009605

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